

### **DRAWING OBJECTIONS**

The objections to the drawings are noted by Applicant. Applicant has submitted new FIGS. 1 through 3 in accordance with the Examiner's suggestions.

### **OBJECTIONS TO THE DECLARATION**

Applicants note the Examiner's objections to the declaration, and are in the process of preparing and executing a substitute declaration correctly claiming priority in accordance with the Examiner's suggestions. The executed declaration will be submitted to the USPTO in due course.

### **OBJECTIONS TO THE SPECIFICATION**

Applicants have submitted an abstract on a separate sheet in accordance with the Examiner's requirement. Applicants respectfully submit that the other informalities noted by the Examiner have been obviated by submission of the attached substitute specification.

### **THE §112 REJECTION**

Claims 1 and 2 were rejected under 35 USC §112, second paragraph, due to a lack of antecedent basis for the term "eight-vaned media structure". By this amendment, claims 1 and 2 have been canceled, thus obviating this ground of rejection. Applicants submit that new claims 10 through 29 are in compliance with 35 USC §112.

### **THE §103 REJECTIONS**

Claims 1 and 2 were rejected under 35 USC §103 as being unpatentable over either U.S. Patent No. 5,779,886 to Couture or U.S. Patent No. 3,589,518 to Brebion.

Insofar as they may be applied to new claims 10 through 29, these rejections are respectfully traversed. Applicant respectfully submits that, for the reasons that follow, the Examiner has failed to establish a *prima facie* case for obviousness.

In Graham v. John Deere Co., 383 U.S. 1 (1966), the Supreme Court indicated that "under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level ordinary skill in the art resolved." 383 U.S. 1 at 17.

#### SCOPE AND CONTENT OF THE PRIOR ART

U.S. Patent No. 5,779,886 to Couture is directed to media suitable for trickle filters and biological treatment of effluent or sewage. The media comprise an elongated member having a center core, a plurality of axially extending ribs, a plurality of fins extending outwardly from each rib, and a plurality of outwardly-extending vanes situated at the distal end of each rib.

U.S. Patent No. 3,589,518 to Brebion is directed to a streaming filter to purify polluted waters by bacteriological aerobic action. The filter includes a plurality of units arranged juxtaposed in substantially vertical alignment. Each of the units has a thin-walled structure with continuous exchange surface throughout the entire height of the filter. The filter has a cylindrical form with an internal cellular structure integral with the cylinder.

#### DIFFERENCES BETWEEN THE PRIOR ART AND THE CLAIMS AT ISSUE

Claims 10 through 29 recite structure and function that are not found in the references of record. No reference or permissible combination of references either teaches or suggests the compositions recited in applicant's claims.

The vaned configurations of both the Couture and Brebion patents merely provide exchange area, and are not intended, nor do they function, for the purpose of providing hydromechanical separation of suspended organic or inorganic material in a submersed orientation perpendicular to waste liquid flow.

### THE LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art would never be motivated to modify the exchange areas of Couture or Brebion to provide the alternating venturis and variable speed vortices now positively recited in Applicants' claims. The present invention does more than merely impart angular velocity to waste liquid flowing through its channels; the angular velocity is uniform from the point of maximum submersion to minimum submersion, thereby providing a uniform columnar area of low hydrostatic pressure throughout the vortex.

Applicant submits that the question under §103 is whether the totality of the prior art would collectively suggest the claimed invention to one of ordinary skill in this art. *In re Merck & Co., Inc.*, 231 U.S.P.Q. 375 (Fed. Cir. 1986). The answer to this question with respect to Applicant's claimed invention is clearly "no".

It is insufficient that the prior art disclosed the components of the claimed device, either separately or used in other combinations; there must be some teaching, suggestion, or incentive to make the combination made by the inventor. Interconnect Planning Corp. v. Feil, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1988). Individual references cannot be "employed as a mosaic to recreate a facsimile of the claimed invention." Northern Telecom Inc. v. Datapoint Corp., 15 U.S.P.Q. 2d 1321, 1323 (Fed. Cir. 1990).

Even assuming that one of ordinary skill in the art would somehow have combined the references applied by the Examiner, the resultant combination would still lack critical features positively recited in claims 10 through 29.

Applicants assume that, in the absence of any citation showing induced vertical vortices and venturis, the Examiner has taken "Official Notice" of such features. In accordance with MPEP Section 2144.03, Applicant respectfully traverses the Examiner's

assertion of Official Notice, and requests that the Examiner provide a reference or references in support thereof.

Assuming that such references can be produced, they would still fail to ameliorate the abject deficiencies of the Couture and Brebion patents, as set forth hereinabove.

With the analysis of the deficiencies of the applied references in mind as enumerated above, there is no reason or suggestion in the evidence of record as to why one of ordinary skill in the art would have been led to produce the claimed invention. Therefore, *prima facie* obviousness has not been established.

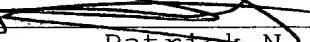
The Examiner has failed to meet the test for obviousness as set forth in Graham v. John Deere Co. Withdrawal of the §103 rejection is in order, and therefore respectfully requested.

In view of the foregoing remarks and amendments, Applicant respectfully submits that claims 10 through 29 define allowable subject matter. The Examiner is requested to indicate the allowability of these claims, and to pass the application to issue.

Respectfully submitted,

  
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Pursuant to 37 C.F.R. 1.10, I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Commissioner of Patents, Washington, D.C. 20231, on this 6th day of April, 2000.

Signed: 

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